

Work Task E2:	Needles-Topock (Az RM 240) Stabilization, Havasu National Wildlife Refuge
Partners:	U.S. Fish and Wildlife Service (FWS) Bureau of Reclamation (Reclamation)
Point of Contact:	Gail Iglitz, LC-2459 (702) 293-8138
Purpose:	Incorporate ecological restoration principles into a proposed river stabilization project to achieve river stabilization and habitat creation.
Conservation Measure:	Develop techniques in support of all covered species habitat creation requirements.
Long-Term Goal:	Integrate Reclamation's river stabilization responsibilities with LCR MSCP habitat restoration goals to stabilize a section of river and provide quality habitat.
Location	Havasus National Wildlife Refuge, RM 240, Arizona side.
FY05 Estimate:	\$80,000. Funding is for in-house staff including Yuma Area Office's (YAO) engineering support.
Project Description:	<p>The site is located on the western edge of the Havasu National Wildlife Refuge (HNWR) in Arizona. Reclamation's front work and levee system, has identified and incorporated the project into the agencies ten year work plan. The Needles-Topock bankline has seen an increasing amount of erosion and shelving due to increased recreational use. The increased use of motor-driven boats and personal watercraft creates a significant amount of wave action against the sandy bankline, which increases the loss of land due to erosion and increase the sediment load in the river.</p> <p>The opportunity exists to incorporate the development of various habitats, such as marsh, riparian and backwater environments with stabilization techniques of the bankline now and in the future.</p> <p>Along with the stabilization techniques, a passive flood irrigation system will be utilized. The intent of this type of system is to decrease the costs associated with maintenance and personnel to operate irrigation systems. To date, flood irrigation has proven to be the best method of irrigation to create habitat that includes the conditions necessary for federally listed endangered species along the lower Colorado River.</p>

The passive irrigation system would allow water to flood the site when river flows exceed 12,000 cubic feet per second. These flows are generated during the seasons (spring, summer and fall) of high water demand downstream. They also coincide with both the growing season for trees/vegetation, and the migration and breeding season of Southwestern willow flycatcher. The site will be contoured to create elevation changes which will allow low areas to be saturated or filled pockets of standing water.

Approximately 50 acres will become a narrow long linear mosaic of habitat that will serve as a connection to other restoration sites along the lower Colorado River.

A preliminary design and value engineering study has been completed. Environmental compliance and resource agency input is being solicited.